Vote No. 266

September 4, 1996, 2:15 pm Page S-9799 Temp. Record

VA-HUD APPROPRIATIONS/NASA's Bion Program

SUBJECT:

Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Bill for fiscal year 1997 . . . H.R. 3666. Smith motion to table the excepted committee amendment on page 104, lines 21-24.

ACTION: MOTION TO TABLE FAILED, 42-54

SYNOPSIS: As reported, H.R. 3666, the Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Bill for fiscal year 1997, will provide a net of \$84.7 billion in new budget authority, which is \$2.8 billion under the Administration's request, \$714 million more than provided in the House-passed bill, and \$2.3 billion more than provided in FY 1996.

The excepted committee amendment on page 104, lines 21 to 24, would strike the following line from the bill, "None of the funds made available in this Act for the National Aeronautics and Space Administration may be used to carry out or pay the salaries of personnel who carry out the Bion 11 and 12 projects." (The House added that prohibition. The Bion 11 and Bion 12 projects are joint Russian, French, and United States planned space flights that will gather data on the physiological effects of space flight; the flights will use primates.)

Following debate, Senator Smith moved to table the amendment. Generally, those favoring the motion to table opposed the amendment (and thus opposed funding for the space flights); those opposing the motion to table favored the amendment (and thus favored funding for the space flights).

NOTE: Following the vote, the amendment was adopted by voice vote.

Those favoring the motion to table contended:

Both of these flights will send rhesus monkeys into space to study the effects of weightlessness. The cost, for the United States, will be \$15.5 million, \$6.8 million of which will be spent in fiscal year 1997. The idea is that we will be able to study the effects of weightlessness on the monkeys and will be able to extrapolate the results to humans. The problem with this idea is that it overlooks

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Republicans	Democrats (21 or 46%)	Republicans (29 or 58%)		Democrats (25 or 54%)	Republicans	Democrats
(21 or 42%)					(3)	(1)
Abraham Brown Cohen D'Amato Faircloth Grams Grassley Gregg Hatch Helms Inhofe Jeffords McCain Nickles Roth Smith Snowe Specter Thomas Thompson Warner	Akaka Baucus Biden Boxer Bumpers Conrad Dorgan Feingold Harkin Johnston Kennedy Kerrey Kerry Kohl Leahy Levin Murray Pryor Reid Wellstone Wyden	Ashcroft Bennett Bond Burns Campbell Chafee Coats Cochran Coverdell Craig DeWine Domenici Frahm Frist	Gorton Gramm Hutchison Kassebaum Kempthorne Kyl Lott Lugar Mack McConnell Pressler Shelby Simpson Stevens Thurmond	Bingaman Bradley Breaux Bryan Byrd Daschle Dodd Exon Feinstein Ford Glenn Graham Heflin Hollings Inouye Lieberman Mikulski Moseley-Braun Moynihan Nunn Pell Robb Rockefeller Sarbanes Simon	1—Offic 2—Nece 3—Illnes 4—Othe SYMBO AY—Ar	LS: mounced Yea mounced Nay red Yea

VOTE NO. 266 SEPTEMBER 4, 1996

that these experiments have already been done, over and over, for the past 40 years. Further, the data collected will be much less valuable than previous data that has been collected for several reasons, including that the monkeys will only be in space for 2 weeks, they will be restrained, and they will be sedated. Humans in space are not sedated, they have been in space for as long as 439 days at a time, and they are not restrained. When the space program first started, before humans had gone into space, these flights would have made sense, but they do not make sense now.

Given that no useful data will be obtained, there is no justification to subject the monkeys to the treatment they will receive under these programs. They will have the top of their skulls removed in order to attack electrodes, other electrodes will be attached to their eyes, and they will have other probes inserted in their abdominal cavities. They will be physically restrained from moving for the entire 2-week flights. Once the flights are over, they will be taken care of, and treated as heroes in Russia, but that is hardly a justification for their earlier mistreatment.

It appears that most Senators who support the motion to table are the same Senators who typically oppose NASA funding, and those Senators who are against it are the same Senators who typically favor NASA funding. This division is unfortunate because the Smith motion to table is not intended to harm NASA, and will indeed help it. Cutting funding for this unnecessary project will result in NASA having more funding for meritorious projects.

We urge Senators not to look at this motion to table as an anti-NASA motion. Agreeing to it will stop \$15.5 million from being wasted on two totally unnecessary space flights, and will prevent America from participating in a project that will needlessly subject monkeys to great pain and discomfort. Both budget watchdog and animal rights groups favor this motion. We urge Senators to support it as well.

Those opposing the motion to table contended:

The purpose of these flights is to gather data on the extremely harmful physiological effects of weightlessness. Astronauts in space suffer rapid calcium loss from their bones; their muscles quickly atrophy; their bodies' systems for maintaining balance deteriorate; their immune systems weaken; their sleep patterns change. Most Senators probably find this list familiar--these problems are also the most common problems associated with old age. Finding the causes of these problems in space flight in young, healthy individuals will quite possibly lead to methods of preventing these ailments in the elderly on Earth. For astronauts, it will make space flight much less grueling and dangerous, and will make longer space flights possible.

Some Senators have pointed out that we should conduct, and do conduct, experiments on humans to study weightlessness, and that we therefore do not need to conduct experiments on animals. This argument is wrong for space research for the same reason that is is wrong for research on earth. A tremendous amount of medical research has been conducted on both animals and humans on earth, yet that prior research does not obviate the need for further research. As medical science moves forward, more questions are always raised. Sometimes it is appropriate to use human subjects; sometimes it is appropriate to use animal subjects first. Senator Frist, who is a heart surgeon, understands this point from years of practical experience. As a pioneer in transplant surgery, he often conducted experimental operations on animals to discover the techniques that are necessary to perform human transplants successfully. In those experiments, he followed humanitarian guidelines for the treatment of animals. The same humanitarian guidelines will be followed on the Bion missions.

In the case of the Bion missions, the use of monkeys is appropriate for numerous reasons. Astronauts go through a regular series of countermeasures in space, including rigorous physical exercise, in order to lessen the harmful effects of weightlessness. These countermeasures obviously result in data distortions. Another reason is that using monkeys makes it possible to control for more factors. The monkeys will not move about and they will eat exactly the same amount of food at the same time each day. Data with human subjects could even be affected by such factors as the mental stress involved in performing different tasks on different days. The data collected on the Bion missions will not suffer from such distortions.

The high-profile nature of this research has made the Bion space flights a target of extremist groups that oppose all use of animals in medical research. In response to criticisms, the missions have been subjected to four independent peer reviews, and in each case their value has been emphatically endorsed. We know of no other medical research project that has been as exhaustively reviewed over the years as these space flights have been. The Bion space flights are not a boondoggle supported only by NASA scientists-independent researchers have repeatedly endorsed their value.

The Bion space program is primarily a Russian space program. Over the years, Russia has spent approximately \$500 million. France and the United States have now joined in the program. This year, the United States will put up less than \$7 million. In return for this modest investment, valuable data will be collected for improving the safety of space flight, and that data may well prove very useful in treating medical problems on Earth, particularly problems associated with aging. We urge our colleagues not to substitute their scientific judgment for the judgment of experts. We urge them to support this amendment.